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ABSTRACT OF THE DISCLOSURE

A binderless glass fiber mat suitable for use as a separator for valve regulated ("recombinant") lead acid ("VRLA") batteries is disclosed. The separator is produced by a dry process by collecting the fibers from fiberizing apparatus, without subjecting them to a wet paper making or other post forming process, and selecting portions of the collected fibers which are sufficiently uniform in thickness and grammage for use as battery separators. The fibers can be entwined to produce a superior separator material. Additives can be introduced during the collection process to enhance the properties of the separator. A battery comprises at least one stack of alternating positive and negative plates, with the separator between adjacent plates. Separators according to the invention are significantly more resilient and have longer fibers than otherwise identical separators made from different samples of the same glass fibers, but by a conventional wet paper making process.

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